

New approaches to measuring welfare

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Abstract

Economics has traditionally understood ‘welfare’ (what makes a life go well) as the satisfaction of preference. This conceptualisation of welfare is typically measured using revealed preferences, proxied through income and prices or stated in willingness-to-pay surveys. Recent decades have seen growing challenges to this paradigm. The climate crisis, among other phenomena, has called into question whether income and price data effectively proxy preferences, and willingness-to-pay surveys continue to struggle with accurately pricing important items such as biodiversity, digital goods, privacy and social connections. Preference satisfaction as a welfare criterion has also been challenged conceptually by psychologists and scholars working in the development space, among others. In this article, we review recent innovations in alternate ways of conceptualising and measuring welfare for the purposes of economic welfare analysis. We focus on using stated preferences over aspects of well-being, life-satisfaction scales and the WELLBY approach, and well-being frameworks such as Bhutan’s Gross National Happiness Index. While not without weaknesses, these approaches also have marked strengths relative to the traditional approach.

KEYWORDS

capabilities, cost–benefit analysis, life satisfaction, measurement, welfare, well-being

JEL CLASSIFICATION

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My principal work now lies in tracing out the exact nature and conditions of utility. It seems strange indeed that economists have not bestowed more minute attention on a subject which doubtless furnishes the true key to the problem of economics.

William Stanley Jevons, *The Theory of Political Economy*

1 | INTRODUCTION

Classical economics featured a lively debate over the exact nature of ‘welfare’¹ and how it could be measured. Jevons and Edgeworth followed Bentham in understanding welfare hedonically, as the preponderance of pleasure over pain, and Edgeworth famously proposed the invention of a hedonimeter for measuring this quantum. Pareto, among others, leaned more towards what we now know as *preference satisfaction*, which could be measured using revealed preference in choice. While this debate lasted several decades, preference satisfaction gained the upper hand after the influential argument of Robbins (1932) that pleasure could not be observed while choice could. It then came to dominate neoclassical economics after Samuelson (1938) formalised preference orderings as measures of welfare for the purposes of microeconomic modelling. Since then, economics has developed an elaborate architecture for making welfare comparisons using income and price data as proxies for preference satisfaction as revealed in choice.² Where goods are not traded in competitive markets, willingness-to-pay surveys and other means of revealing preferences are used instead.

Yet this welfare economics architecture is under strain today, in large part because it seems ill suited to many policy challenges. GDP growth has jeopardised environmental sustainability, and the aftermath of 1980s market-oriented policies has revealed how much people value non-market goods that are difficult to price, such as community infrastructure, social capital, belongingness and identity.³ Willingness-to-pay surveys and related techniques for eliciting preferences have proven poor at estimating the value of things that people rarely consume or do not understand well and thus cannot form rational preferences over (such as biodiversity loss and other threats to ecological systems, loneliness, data privacy or globalisation). Income and prices were a convenient shorthand for welfare in the past, but it is increasingly clear that 20th century statistics cannot fully capture the costs and benefits of 21st century progress.

If GDP is an increasingly inadequate measure of welfare, what can be measured instead? Fleurbaey and Blanchet (2013) outline the historical trajectories of non-GDP approaches to well-being measurement and identify four threads: subjective approaches;⁴ composite or hybrid approaches (such as the Human Development Index or OECD Better Life Index); dashboards (from the social indicators movement of the 1960s to the UN Sustainable Development Goals); and accounting/monetary approaches such as equivalent income. In this article, we review recent advances in the first three of these with a focus on stated preference surveys, life-satisfaction scales and well-being frameworks.

2 | MEASURING WELFARE USING STATED PREFERENCES FOR ASPECTS OF WELL-BEING

First, we discuss the potential to go beyond the traditional welfare framework inherited from normative neoclassical economics – with its focus on revealed preference – and use surveys to directly measure

¹ In this article, used synonymously with ‘well-being’.

² Adler and Fleurbaey, 2016.

³ Coyle, 2021.

⁴ For example, Frijters and Krekel (2021).

well-being. Both of the well-being survey approaches discussed here fall into the ‘subjective’ category in that they are concerned with people’s evaluation of their own lives, based on their own preferences. The well-being concept so elicited is called subjective well-being (SWB) or self-reported well-being (SRWB).

The appropriate choice of survey question (or questions) is a matter of debate. In the policy realm, there is widespread agreement that well-being is a multidimensional concept.⁵ Within the realm of SWB, many types of evaluation have been studied.⁶ For example, the UK Office for National Statistics (ONS) has posed questions about life satisfaction, worthwhileness, happiness and anxiety (known as the ONS4) in its Annual Population Survey since April 2011. In this section, we discuss an approach to measure and aggregate many different *aspects of well-being* into an overall index of personal well-being, as proposed by Benjamin et al. (2014). As described in Benjamin et al. (2020), this multidimensional approach is motivated by evidence that single survey questions about happiness or life satisfaction, discussed in the next section, may not fulfil their goal of being fully comprehensive of everything that matters to people or of weighting the sub-dimensions of well-being in a way that respects people’s (idealised) preferences. Keeping the many aspects in a dashboard, as discussed in Section 4, would be an alternative to an index. However, in policy contexts, it is typically the case that some dimensions of well-being go up at the cost of others going down, so ultimately a single measure is needed to evaluate the overall effect on an individual and, for policy purposes, to make resource allocation decisions.⁷

The Benjamin et al. (2014) approach includes questions about many dimensions of self-reported well-being in an SWB survey. The levels of aspects of well-being (aspects) play the role of ‘quantities’ in the index. The aspects may be broad or narrow, affective or evaluative, in any domain of life. Example aspects range from ‘how happy you feel’ and ‘your sense that your life is meaningful and has value’⁸ to ‘you having autonomy in your job’ and ‘the amount of stability in your life’.⁹ The SWB survey is paired with a stated preference (SP) survey in which respondents choose between options which vary the levels of the aspects. From the SP survey data on trade-offs, researchers can estimate relative marginal utilities which play the role of ‘prices’ or weights in the index. To track well-being over time, changes in the levels of aspects are weighted by the marginal utilities to determine whether well-being is going up overall.

This framework moves from the income–prices paradigm – measuring the value of market goods which contribute to well-being – to direct measurement of the well-being that results from both market and non-market activities. This approach is consistent with a home production model: households use market goods to ‘produce’ the commodities that are truly desired.¹⁰ The framework also has an advantage of potentially avoiding well-being measurement bias from behavioural and cognitive biases or ‘mistakes’ in consumption. As Decancq, Fleurbaey and Schokkaert (2015) and others point out, there are many reasons why idealised preferences may differ from revealed preferences (choices) or experienced well-being, including imperfect information or heuristics used in decision-making. For example, if people’s purchases were driven by status-driven consumption which did not actually make them better off,¹¹ then this would be reflected by increased consumption that lacks a corresponding increase in self-reported well-being. In contrast, Benjamin et al. (2014) hypothesise that people may know their preferences over aspects of well-being more fully than they know their preferences over market goods.

⁵ For example, Stiglitz, Sen and Fitoussi (2009).

⁶ Stone and Mackie, 2014.

⁷ To further track the effect on society overall, researchers typically aggregate the well-being of individuals into a social welfare function. A discussion of aggregation is outside the scope of this article, but see Adler (2019) for a review.

⁸ Benjamin et al., 2017.

⁹ Benjamin et al., 2019.

¹⁰ Becker, 1965; Lancaster, 1966.

¹¹ For example, Frank (2000).

One advantage of the aspects approach is its openness to value plurality and agent heterogeneity. The aspect list for an organisation, city or country could be openly discussed by its constituents in a form of deliberate democracy, leading to context-sensitive indices. There are drawbacks to this flexibility too, though. As more researchers (and perhaps even countries) use this approach, there would be interest in, and benefits from, standardisation of the aspect list. Using the aspects for policy analysis may also become politicised, making the wording of the aspects controversial.

There are also some methodological challenges. We outline three significant ones here. Like any multidimensional approach, a key decision is which aspects of well-being to include in surveys. Benjamin et al. (2014) and Benjamin et al. (2017) emphasise two desiderata which are potentially in tension with each other: *comprehensiveness* and *non-overlappingness*. First, the aspect list should be sufficiently comprehensive of what matters in people's lives that the researcher can be certain with a high degree of probability that a well-being conclusion about the measured index – such as a group comparison or policy evaluation – is also true for well-being as a whole. Second, the researcher must address the potential for conceptual overlap between the aspects of well-being. The tension arises because a longer list of aspects is likely to improve comprehensiveness while making overlap issues worse.

Dealing with overlapping aspects of well-being is a thorny issue. In the market goods setting, GDP measurement avoids double-counting by counting only value added in the production of final goods. However, if a researcher wants to include the aspect 'how happy you feel' as well as 'your happiness', there is no a priori basis on which to judge how much those aspects describe the same parts of life versus distinct parts of life. Benjamin et al. (2014) can avoid the problem of overlap, in principle, by focusing on fundamental aspects of well-being which do not overlap with each other. However, they also introduce a model of survey response which includes 'combination responses': SWB responses which combine multiple fundamental aspects of well-being in their self-reports. They propose a method for dealing with conceptual overlap in such a setting. The idea is to ask stated-preference questions between three aspects, two of which are suspected to have conceptual overlap and a third which functions as the numeraire. For example, if the three aspects are A, B and C, respectively, the trade-offs are between A and C, B and C, and 'A and B' versus C. If the increase in 'A and B' has a smaller marginal rate of substitution (MRS) relative to C than the sums of the MRSs for A and B, separately, then this will be evidence of (and a quantification of) the extent of conceptual overlap. A key assumption is local linearity for small changes, to rule out complementarity between the aspects.

A final methodological challenge is the potential lack of interpersonal comparability in the way respondents choose numbers for their SWB responses. Oswald (2008) refers to the mapping an individual makes between their objective state and the reported number as the 'reporting function'. Decancq, Fleurbaey and Schokkaert (2015) refer to the parameters of the reporting function – which may be related to personal characteristics but are not relevant for the SWB response itself – as 'scaling factors'. To the extent scaling factors are correlated with demographic characteristics, they can confound comparisons of SWB responses between demographic groups.¹² One approach is to collect panel data so that time-invariant interpersonal differences in scaling factors can be accounted for in individual fixed effects. Another approach is to collect additional data (for example, from 'vignettes'¹³) to correct for an individual's scaling factors.

3 | EXPERIENCED PREFERENCES, LIFE SATISFACTION AND WELLBYS

A different approach to valuing social, or public, value in social welfare analyses involves *experienced preferences* – a term used to differentiate them from the more traditional stated or revealed

¹² Fabian, 2021b; Kaiser, 2022.

¹³ Kapteyn, Smith and van Soest, 2007.

preferences (see Kahneman, Wakker and Sarin (1997) for an early discussion of ‘experienced utility’). Experienced preferences do not rely on directly asking individuals about their willingness-to-pay for certain benefits as in stated preferences, nor do they rely on inferring the willingness-to-pay from market prices and observed choices as in revealed preferences. This avoids bias from strategic responses, social desirability, attitude expression, or the sheer cognitive difficulty of putting a price tag onto hypothetical benefits in rather abstract choice contexts. Moreover, experienced preferences do not require well-functioning, perfectly competitive markets. Perhaps most importantly, they do not assume that individuals act rationally and with perfect foresight, being able to perfectly predict all possible welfare consequences of their choices.¹⁴ Rather than relying on people’s *ex-ante* thoughts about what the benefits from certain choices will be, experienced preferences only rely on measuring their feelings, *ex post*, once these choices have been made. In contrast to the approach described in the previous section, this one relies on a single well-being measure that is assumed to capture the ‘whole’ of life.

Central to this approach of valuing benefits is the concept of the *WELLBY* (or *well-being-adjusted life-year*) – a novel measure of benefit.¹⁵ It is captured, first, by asking individuals about their overall satisfaction with life, using the Likert scale question ‘Overall, how satisfied are you with your life nowadays?’, where answers range from 0 (‘Not at all’) to 10 (‘Completely’). This question, in one form or another, has been included in national and international surveys across social science disciplines since the 1970s, and in the UK as part of the British Household Panel Survey / UK Household Longitudinal Survey (‘Understanding Society’) since 1991. Importantly, the Office for National Statistics (ONS) in the UK has been including this question, amongst other personal well-being questions (i.e. happiness, anxiety, and worthwhileness of things in life, as a measure of eudemonia) in all of its surveys since 2011, including the Annual Population Survey (APS) which samples more than 300,000 individuals in each quarter of the year.¹⁶ Measures of life satisfaction (including close relatives such as Cantril’s ladder of life) have been shown to have sound psychological properties when it comes to reliability, validity, sensitivity and discriminant validity,¹⁷ and they are increasingly used by public policy in various countries for monitoring progress, informing policy design and policy appraisal.¹⁸

A *WELLBY* is defined as one point of life satisfaction on a 0-to-10 scale (for example, 1.0 points) for one individual for one year.¹⁹ It thus has two components: quality of life and length of life. If we were to measure social, or public, value and progress entirely in terms of *WELLBY*s, the social planner’s objective would be to maximise total *WELLBY*s in society subject to constraints (mainly the budget). This can be achieved by increasing life satisfaction (i.e. quality of life), by increasing life years (i.e. length of life) or both. On average, a typical UK resident generates about 615 *WELLBY*s over the life course (a mean life satisfaction of about 7.5 times mean life years of about 82 yields 615 *WELLBY*s). With 67 million residents in the UK in 2022, this results in 41.2 billion *WELLBY*s. Growth in this figure can be interpreted as a measure of social progress, similar to the interpretation of growth in GDP. Unlike GDP per capita, however, *WELLBY*s capture more things that are important in daily lives – for example, health (both physical and mental), social relationships, volunteering, culture, identity and belonging, and the environment we live in.²⁰

Having individuals’ self-reports of their overall satisfaction with life as the underlying measure of the *WELLBY* brings with it a range of advantages. For one, letting people be their own judges

¹⁴ Kahneman, Wakker and Sarin, 1997.

¹⁵ Frijters et al., 2020; De Neve et al., 2020; Frijters and Krekel, 2021.

¹⁶ Dolan and Metcalfe, 2012; Office for National Statistics, 2018.

¹⁷ Diener, Inglehart and Tay, 2013.

¹⁸ Graham, Laffan and Pinto, 2018.

¹⁹ Frijters and Krekel, 2021.

²⁰ See Frijters et al. (2020).

of their quality of life is fundamentally democratic, and it can be seen as following the one-person one-vote principle, where each self-report of life satisfaction constitutes one vote about one's quality of life.²¹ Importantly, evidence from vignette studies suggests that people perceive life satisfaction as an important, overarching life outcome,²² and predicted life satisfaction has been shown to be a powerful predictor of hypothetical choice.²³ The measure also correlates well with objective outcomes such as health and longevity²⁴ or productivity,²⁵ and it has been shown to be a predictor for individual behaviour such as voting for the incumbent government²⁶ or 'get-me-out-of-here' actions.²⁷ Importantly, the measure is uniquely capable of capturing important behavioural scientific phenomena (and, crucially, of integrating these into social welfare analyses), including anticipation and misprediction,²⁸ adaptation to changing life circumstances,²⁹ relative comparisons and status concerns,³⁰ well-being spillovers from one person to another,³¹ and important aspects related to procedural utility such as being treated fairly and with dignity, which may be just as important as the target outcome of a policy itself.³² Importantly, data on life satisfaction are cheap and easy to collect, easy to interpret and straightforward to analyse. There now exists a large and readily usable evidence base on what matters (or not) to people's lives,³³ in the UK and elsewhere, and it is steadily growing.

Of course, the measure has some drawbacks. For instance, there is a large intra-personal variability in life satisfaction which must be overcome by large sample sizes, ideally following the same individuals longitudinally over time. Moreover, the measure has been shown to be subject to item-ordering effects and priming (for example, by preceding items in surveys³⁴), survey-framing effects, and interviewer and mode effects,³⁵ whilst being sensitive to seemingly unrelated contextual factors (for example, the weather³⁶). All of these require careful survey design and administration, or empirical correction. In terms of interpretation, it has been shown – by directly asking respondents to introspect about the life domains, time horizons and social circles they had in mind when answering a previous life-satisfaction question – that the measure does not neatly correspond to any standard notion of utility in economics (i.e. neither self-regarding flow, forward-looking nor lifetime utility).³⁷ This may require refining the question text further in the future, or controlling for varying introspective thoughts in regressions. Finally, evidence about the cardinality of life-satisfaction responses is still comparatively weak. However, research in this area is active and utilises a variety of approaches to argue that life-satisfaction responses can be treated as cardinal. For example, similar test–retest reliability at different levels of life satisfaction in Krueger and Schkade (2008) suggests that the size of

²¹ Frijters and Krekel, 2021.

²² Adler, Dolan and Kavetsos, 2017; Adler et al., 2022.

²³ Benjamin et al., 2012.

²⁴ Danner, Snowdon and Friesen, 2001; Steptoe and Wardle, 2011; Steptoe, Deaton and Stone, 2015.

²⁵ De Neve and Oswald, 2012; Oswald, Proto and Sgroi, 2015.

²⁶ Liberini, Redoano and Proto, 2017; Ward, 2019.

²⁷ Kaiser and Oswald, 2022.

²⁸ Odermatt and Stutzer, 2019.

²⁹ Clark et al., 2008.

³⁰ Luttmer, 2005; Card et al., 2012; Perez-Truglia, 2020.

³¹ Mervin and Frijters, 2014.

³² Stutzer, 2020.

³³ See Clark et al. (2018).

³⁴ See Schimmack and Oishi (2005).

³⁵ See Dolan and Kavetsos (2016).

³⁶ See Schwarz and Clore (1983).

³⁷ Benjamin et al., 2021.

a well-being unit (the just-noticeable difference – JND) is the same across the life-satisfaction scale.³⁸ Arguments based on logic,³⁹ joint use of language⁴⁰ or different modelling approaches⁴¹ suggest that respondents are treating life-satisfaction responses as cardinal.

In the UK, the official guideline for policy appraisal and evaluation – HM Treasury's Green Book – now permits the use of WELLBYs as a measure of benefit in social welfare analyses, as described in its 2021 supplementary guidance on well-being. This guidance also provides a monetary value of the WELLBY, which is bounded between £10,000 and £16,000, with £13,000 as its recommended central value (in 2019 prices).⁴² Following Frijters and Krekel (2021), the lower bound is obtained from logic, by looking at life satisfaction in different health states and, in doing so, by pegging the monetary value of the WELLBY to the monetary value of a quality-adjusted life-year (QALY), which is routinely used by UK government. (1.0 QALYs are valued at £60,000 in 2014 or about £70,200 in 2019 prices, as per Green Book guidance.) The upper bound is obtained from the marginal rate of substitution between life satisfaction and income.⁴³

A compelling feature of the WELLBY is that it provides an easy, convenient way of monetising well-being benefits: say, for instance, that a policy increases someone's life satisfaction by 0.2 points on a 0-to-10 scale (i.e. 0.2 WELLBYs) for one year, which is roughly the life-satisfaction impact of monthly volunteering.⁴⁴ Using the recommended, central monetary value for 1.0 WELLBYs of £13,000, this yields a monetised well-being benefit of $0.2 \times £13,000 = £2,600$. In other words, monthly volunteering for one year has an equivalent monetary value of £2,600. Another example comes from labour market policy:⁴⁵ getting someone out of unemployment and into gainful employment yields a life-satisfaction benefit of 0.46 points on a 0-to-10 scale (i.e. 0.46 WELLBYs) per year, over and beyond any additional income earned (i.e. the pure psychological benefit of being out of unemployment). Again, using the recommended, central monetary value for 1.0 WELLBYs of £13,000 yields a monetised well-being benefit of $0.46 \times £13,000 = £5,980$ per year. This comes on top of any income from gainful employment, and hence makes a strong case for active labour market policies from a well-being perspective.

The two workhorses that most governments use for social welfare analysis are social cost-benefit analysis (CBA) and social cost-effectiveness analysis (CEA). In CBA, the net present value of benefits is compared with the net present value of public costs (including savings to the public purse), to arrive at the net present social value of a policy. If positive, the policy may be worthwhile; if negative, most likely not. In CEA, the net present value of public costs (again, including savings) is divided by the net present value of benefits, to arrive at the social unit costs of a policy. Policies that yield lower social unit costs are preferred (as these produce social, or public, value at a lower cost to the exchequer). In the UK, HM Treasury's Green Book now allows the inclusion of – besides standard monetary benefits in the form of willingness-to-pay – well-being benefits in CBA, when monetised using the recommended, central monetary value of the WELLBY. If all benefits can be expressed in well-being terms (i.e. there are no monetary benefits, just well-being benefits), the Green Book even permits calculation of social unit costs with WELLBYs as the *only* measure of benefit.⁴⁶ This is a major step in terms of incorporating well-being in public policy choices, providing a convenient way

³⁸ See also Prati and Senik (2022).

³⁹ Layard and De Neve, 2023.

⁴⁰ Kapteyn, 1977.

⁴¹ Frey and Stutzer, 2000; Ferrer-i-Carbonell and Frijters, 2004.

⁴² HM Treasury, 2021.

⁴³ Fujiwara and Dass, 2021.

⁴⁴ See Dolan et al. (2021).

⁴⁵ Frijters and Krekel, 2021.

⁴⁶ HM Treasury, 2021.

to conduct CEA for a wide range of otherwise hard-to-appraise public goods and services for which no market prices exist, using WELLBYs as the ultimate measure of benefit.

Some policymakers would like to see policies evaluated against a well-being objective in this way. This is a process of learning by doing, improving the evidence base and methodological toolkit, from which, ultimately, substantive insights into the value of specific policies can be obtained. There are also new ideas on how to improve the WELLBY approach, if it is to be used to guide policy.

4 | WELL-BEING FRAMEWORKS: CAPABILITIES, WEALTH ACCOUNTING AND CO-PRODUCTION

Arguably the most prominent recent innovation in the measurement of well-being in the context of public policy is the proliferation of ‘well-being frameworks’ and associated indexes. These include, for example, the OECD’s Better Life Index, New Zealand’s Living Standards Framework, the UK’s Measures of National Well-being Dashboard and the Australian Capital Territory’s Well-being Framework. One of the earliest high-profile efforts in this vein was Bhutan’s Gross National Happiness Index, instituted as the goal of the national government in 2008. However, there were several other early movers, including Scotland’s National Performance Framework, begun in 2007, Italy’s Equitable and Sustainable Well-being Framework, launched in 2013, and the Australian Treasury’s well-being framework, announced in 2004 but discontinued after a little over a decade. Scholarly development of multidimensional measures of well-being has advanced since at least the late 1980s as part of so-called social indicators research.⁴⁷

The simple idea motivating well-being frameworks is to identify the various things that make life go well and assemble them into some sort of schema with associated metrics. All existing national well-being frameworks share several of these items, including income, health, education, governance and environmental quality. Other common inclusions are life satisfaction, housing, safety, community, civic engagement, employment and relationships. These well-being items, often called ‘domains’, are usually decided on the basis of a wide-ranging public consultation. An often-cited example is the UK’s national debate on ‘What Matters to You?’, run by the Office for National Statistics. This exercise lasted five months from November 2010 to April 2011 and involved multiple platforms: an online questionnaire and forum, social media, postal submissions, a telephone line and 175 live events including workshops and focus groups with ‘hard-to-reach’ people.⁴⁸ Data from these platforms were analysed in a variety of ways and shaped into the UK’s well-being framework through a series of expert-led efforts marshalled by the ONS.⁴⁹ At more micro scales, well-being frameworks are often co-produced with stakeholder communities through more deliberative methods.⁵⁰ This is especially common in indigenous policy and development work, where the right to self-determination and the need to decolonise activities are often primary objectives.⁵¹

Well-being frameworks can be thought of as greatly expanded versions of the Human Development Index (HDI). They generally share its three well-being items – income, health and education – and are inspired by the same ‘capabilities’ approach to conceptualising well-being.⁵² This is most apparent in the documentation for Bhutan’s Gross National Happiness Index, which was spearheaded by Sabina Alkire, a prominent pioneer of the capability approach to measuring development.⁵³ The

⁴⁷ Aria, Misuraca and Spano, 2020.

⁴⁸ Oman, 2016.

⁴⁹ Oman, 2021.

⁵⁰ Alexandrova and Fabian, 2022.

⁵¹ Sollis et al., 2022; Morkel and Sibanda, 2022.

⁵² Robeyns, 2017.

⁵³ This is somewhat ironic as Amartya Sen was explicitly opposed to understanding well-being in terms of happiness and Bhutan’s Gross National Happiness Index has little to do with happiness as a mental state.

capabilities approach was originally formulated by Sen (1999). In his theory, welfare is associated with preference satisfaction (or more specifically the actualisation of valued functionings) as in standard microeconomics, but the budget constraint is expanded well beyond income to include all determinants of the ‘beings and doings’ that an individual might like to actualise. These determinants are the individual’s ‘capabilities’ – things such as mobility, health, wisdom and enfranchisement. The capabilities approach is nowadays the dominant paradigm informing development policy, both at the international level, in things such as the UN’s Sustainable Development Goals, and at a more micro level across hundreds of charitable interventions and policy initiatives. A major strength of the capabilities approach is its compatibility with various notions of justice. It demands more from governments than just income growth – requiring also the expansion of rights, opportunities and capacities. And it requires more of governments than happiness for their citizens, for as Sen famously noted, citizens can be happy because they have adapted to unjust regimes or meagre circumstances.

Another noteworthy feature of New Zealand’s Living Standards Framework is its inclusion of wealth accounting. In traditional economic accounting, a wealth account is the ‘stock’ counterpart to the GDP ‘flow’ measure. The NZ framework deliberately goes beyond traditional economic notions of ‘built’ capital to also include social, human and environmental capital, termed comprehensive or inclusive wealth.⁵⁴ Sustainability can be defined as ensuring that no future generation has less total wealth than the present. Dasgupta and Mäler (2000) show that an increase in inclusive wealth, measured at appropriate shadow or accounting prices, ensures there is an increase in social welfare. Weighting, measurement and substitutability between capitals are tricky issues for wealth accounting, but this is an area of intense and vibrant research activity (see Zenghelis et al. (2019) for a discussion). Conventional economic statistics are introducing aspects of comprehensive wealth, notably natural and human capital, albeit measured at exchange values rather than social shadow prices.

Perhaps the most common critique of well-being frameworks, at least among economists, pertains to their use as an evaluation tool. Owing to their multidimensionality and the ordinal way many domains are measured, the effects of different policies or institutional arrangements on well-being are challenging if not impossible to compare using a well-being framework. Policy effects will invariably differ across domains, and those domains then need to be weighted to judge which set of effects is better. A rich literature exists exploring how this can be done sensibly.⁵⁵ Nonetheless, in most indexes and evaluation tools constructed using well-being frameworks, domains are equally weighted, which is arbitrary. Critics argue that other approaches are superior. Notably, in traditional cost–benefit analysis using income and price data, weights are provided by the forces of demand and supply. In the aspects of well-being approach, weights are inferred directly from stated preferences. In the WELLBY approach, weights are decided by individuals when deciding on their overall life satisfaction. While no schema is perfect, these alternatives at least seem less arbitrary and more democratic than equal weighting or weights decided on by analysts. One solution to the weighting problem is to allow citizens to decide the weights. This is the approach used by the OECD’s Better Life Index, which provides sliding scales for respondents to adjust their prioritisation across well-being domains.

An alternate approach to the weighting problem is to simply abandon the search. Instead, a democratic political process could estimate the trade-offs that society is willing to make between the domains of a well-being framework. The tools of cost–benefit analysis have been developed by economists to offer ‘dispassionate’ and ‘objective’ advice to politicians from the social planner perspective.⁵⁶ This requires that CBA be merely a set of procedures applied mechanically without making mediating value judgements. Cost–benefit ratios are calculated and reported to policymakers, who make the final decision. Of course, there are many value judgements in CBA, starting from the choice of welfare theory to embed in the exercise (for example, preference satisfaction, life satisfaction

⁵⁴ Arrow et al., 2012.

⁵⁵ Decancq and Ana Lugo, 2013.

⁵⁶ Fabian et al., 2023.

or capabilities) and flowing on to things such as distributional considerations, discount rates, and the probabilities associated with future scenarios. Despite this, if politicians do not choose the option presented to them with the highest benefit–cost ratio, then economists often dismiss them as irrational. Yet, from the perspective of political theory, it is entirely appropriate to conceptualise CBA as merely an input into discourse and for democratically elected politicians to make value judgements post-CBA. It would similarly be fine for CBA using multidimensional well-being frameworks to report a dashboard of outcomes and then leave it to citizens to decide, through their elected officials and the machinery of government, which of those sets of outcomes they prefer. The weighting problem is only a problem for an analyst trying to be dispassionate. The citizen has no such need. Indeed, it arguably undermines democratic politics to cast policy decision-making as a dispassionate technical exercise that can be conducted entirely ‘rationally’, especially with respect to inherently evaluative objectives such as well-being.

A further conceptual argument in this vein is that if well-being is *in fact* multidimensional and these dimensions are incommensurable, then excluding such frameworks owing to their incompatibility with CBA is to miss the forest for the trees. Several recent syntheses of the philosophical and psychological literatures on well-being attest to well-being being multidimensional.⁵⁷ Tiberius (2018) argues that well-being involves the pursuit of values that integrate our emotions, motivations and cognitions. Bishop (2015) argues that well-being is a ‘complex causal network’ of psychological structures and processes. In geography, epidemiology and sociology, well-being is routinely understood as an emergent property of complex social-ecological systems and the interpersonal and cultural interactions that take place within them.⁵⁸ Many of these theories reject the traditional distinction in analytical philosophy and welfare economics between what is intrinsically well-being and what is merely instrumental to it. They argue that well-being is both a process and an outcome and that the things that ‘make a life go well’ – relationships, health, safety – are as much well-being as the going well of that life.

An arguably bigger challenge for well-being frameworks, in their current state of development, is the difficulty of developing operational measures for the domains, which often have abstract labels or are otherwise hard to measure directly. The actual measures in each domain are generally called ‘indicators’. For example, ‘governance’ is typically operationalised through subjective trust in politicians and institutions. Yet, many of the conjectured pathways between governance and well-being relate to the objective quality of governance, not subjective perceptions of it.⁵⁹ The indicators are also typically very high level and consequently hold little diagnostic power. Life expectancy is the most common measure of health, for example, yet life expectancy says little about what is going right or wrong in a nation’s healthcare system. Advocates of ‘bottom-up’ well-being public policy argue that context-sensitive well-being frameworks are advantageous in this regard because they identify issues and metrics that are more informative for policy reform prioritisation.⁶⁰

5 | CONCLUSION

The development of alternate conceptualisations, measures and tools of well-being analysis, which can supplement or supplant the neoclassical revealed preference paradigm, remains a work in progress. However, we believe the tide of scientific and policy interest will continue to turn towards the alternatives. Philosophers often evaluate well-being theories according to their descriptive, normative and empirical adequacy.⁶¹ In the context of economic welfare analysis, especially for the purposes of

⁵⁷ Fabian, 2022.

⁵⁸ Armitage et al., 2012; Gatzweiler et al., 2017.

⁵⁹ Stutzer, 2020.

⁶⁰ Brown and Head, 2019.

⁶¹ Bishop, 2015; Tiberius, 2018.

public policy, one should add *implementation* adequacy to that list.⁶² In short: any welfare analysis that gets done must be one that *can* be done. Status quo approaches have an advantage in implementation and the most advanced techniques. However, as income and prices become less reliable guides to welfare, and the importance of evaluating environmental and social goods continues to grow, the descriptive and empirical adequacy of status quo approaches is likely to decline. At the same time, alternate well-being paradigms such as the ones we have outlined will continue to become more sophisticated. Economists are used to studying trade-offs. Given that we have yet to find – and may never find – a perfect approach to welfare economics, economists who seek to integrate well-being into their work will face methodological trade-offs themselves as they weigh alternative approaches. These are complex but exciting times for welfare economics – all the more reason to reboot it.

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⁶² Fabian, 2021a.

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